

**INITIAL STATEMENT OF REASONS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
CALIFORNIA BUILDING STANDARDS COMMISSION (CBSC)**

**REGARDING THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE,  
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11**

**BSC 03/16**

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

**STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE and BENEFITS:**

(Government Code Section 11346.2(b)(1))

**Regarding Items 1-11, 15 and 16:**

This proposed action by CBSC adopts mandatory and voluntary green building standards for occupancies within its authority, building upon a framework of voluntary measures adopted by CBSC in 2008 and make modifications and clarifications to the 2016 code. The intent of the code continues to (1) reduce greenhouse gas (GHG) emissions from buildings, (2) promote environmentally responsible, cost-effective, healthier places to live and work and reduce potable water consumption in buildings.

The proposed changes to the building standards with statewide application will lead to substantial environmental benefits through reduction in the use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduced detrimental environmental impacts. CBSC conducted pre-cycle workshops in May and November 2016 to develop the proposed amendments to the CALGreen Code and worked closely with other State agencies, stake holders and interested parties.

**Regarding Items 12-14:**

The California Building Standards Commission (CBSC) is proposing to add appropriate sections to the code that require the installation of recycled water supply systems for newly constructed nonresidential buildings. Pursuant to AB 2282 (Gatto, Chapter 606, Statutes of 2014), which added Section 18940.6 to the Health and Safety Code, the legislature mandated that CBSC, along with the Department of Housing and Community Development (HCD) and other interested parties, research, develop, and propose for adoption mandatory recycled water infrastructure standards during the 2016 Intervening Code Adoption Cycle. This would result in the installation of recycled water supply systems in new nonresidential construction. CBSC conducted research during several precycle workshops, in consultation with HCD, DWR, State Water Resources Control Board (SWRCB), public water systems, recycled water producers/purveyors, product manufacturers, local building officials, apartment and other rental property owners, California-licensed contractors, the building industry, water research associations, and other interested parties, and developed standards for recycled water supply systems for both indoor and outdoor use (water closets, urinals, trap primers for floor drains and floor sinks, aboveground and subsurface irrigation, industrial or commercial cooling or air conditioning and other allowed uses). The initial submittal of these regulations was heard by the GREEN-PEME Ad Hoc Code Advisory Committee (CAC) on February 13-14, 2017. During this meeting, CBSC received valuable feedback from industry stakeholders and other interested parties addressing concerns with the indoor elements of the mandatory recycled water building standards. As a result, the CAC recommended that CBSC further study the majority of the recycled water building standards contained within Items 12-15 of this proposal. Specifically, the CAC recommended that CBSC withdraw the indoor element of the AB 2282 mandate, focusing solely on mandatory standards for outdoor recycled water use for landscape irrigation. Based on this recommendation, CBSC is withdrawing the indoor elements of the mandate and focusing on the requirements for outdoor recycled water use in landscape irrigation.

The scope and application of these proposed standards are limited to within a local jurisdiction that has feasible and cost-efficient access to a water recycling facility, or that has been identified within a planned service area with a specific implementation timeline for recycled water. These proposed amendments reflect the statutory mandate and the feedback received during the research phase of the precycle workshops, as well as during the CAC meeting that took place on February 13-14, 2017. As such, CBSC proposes to adopt and amend Chapters 1, 2, 5, and A5. Pursuant to AB 2282, these proposed building standards must be consistent with the recycled water use criteria specified in Chapter 3 (commencing with Section 60301.100) of Division 4 of Title 22 of the California Code of Regulations. These provisions will aid in the reduction of potable water use. CBSC's proposed amendments are in alignment with similar proposals made by HCD and the Department of Water Resources, and are consistent with the California Water Action Plan 2016 Update.

**Specific Proposed Regulatory Actions:** CBSC proposes to amend the 2016 CALGreen Code during the 2016 Intervening Code Adoption Cycle for the development of an 18-month supplement. The supplement will be effective July 1, 2018. It is CBSC's intent to provide clarity to the code user in consistent reference nomenclature to other parts of Title, 24. The rationale for each adoption by chapter, division, and section is listed below.

#### **ITEM 1. CBSC Proposes to amend Chapter 2, Section 202 Definitions**

**DEWATERING:** Pumping of uncontaminated groundwater for construction activities.

**CAC Comments:** The Green/PEME Code Advisory Committee recommended Approve as Amended to the definition by suggesting to add "or treated" to the Dewatering definition.

**CBSC Response:** The CBSC agreed with the CAC and has made suggested changes to the definition.

**NON-STORMWATER DISCHARGES:** Discharges that do not originate from precipitation events. Including, but not limited to, dewatering activities, washout area discharge, vehicle and equipment cleaning, street cleaning, and irrigation runoff.

**Agency Statement:** CBSC proposes to amend Chapter 2 to include new terms that pertain to site development in code section 5.106.1.

#### **Specific Purpose:**

CBSC proposes to adopt the new terms for "dewatering" and "non-stormwater discharges" into Chapter 2.

#### **Rationale:**

The terms "dewatering" and "non-stormwater discharges" are used in CBSC's new proposed amendments to code section 5.106.1.2 and are not currently defined elsewhere in code. The proposed definition is consistent with the current definitions in the National Pollutant Discharge Elimination System (NPDES) regulations.

#### **Benefit:**

Adding these definitions into CALGreen will aid the local jurisdictions and designers to interpret and understand the proposed code changes.

#### **ITEM 2. CBSC Proposes to amend Chapter 5, Section 5.106 Site Development.**

**Agency Statement:** CBSC proposes to amend Chapter 5, Section 5.106.1 & Section 5.106.1.2 and add a new code Section 5.106.2.

**Section 5.106.1 Stormwater pollution prevention for projects that disturb less than one acre of land.**

**Specific Purpose:**

CBSC proposes to amend the title of Section 5.106.1 and to make editorial amendments to the regulation.

**Rationale:**

This section is proposed for amendment to clarify in the title that this code section applies to projects that disturb less than one acre. Additionally, the body of the paragraph is being amended to add verbiage to clarify that the code section applies to projects that disturb less than one acre and are not part of a larger common plan of development or sale. This amendment is needed because it is possible to have a project that disturbs less than one acre of land but because it is part of a larger common plan of development, it would trigger the NPDES permit which is more restrictive and is administered by the State Water Resources Control Board. This section was amended to clarify that this code section only applies to projects that are not required to obtain an NPDES permit for construction activities.

**Benefit:**

Amending this code section will inform the code user to be aware of those specific circumstances that could trigger other regulations that are not readily accessible in the codes because they not printed in Title 24 and are only found on the State Water Resources Control Board's website. Additionally, by adding this amendment in the CALGreen code, it will make it available to a wider audience as this requirement is currently in a permitting regulation that only a select few know exists. By knowing this information prior to the commencement of any preliminary plans could save developers costly change orders during construction.

**Section 5.106.1.2 Best management practices (BMP's).**

**Specific Purpose:**

CBSC proposes to amend section 5.106.1.2 to add additional clarity and add additional requirements to items 1a, 1b and items 2 and 2a.

**Rationale:**

Section 5.106.1.2 item 1a was amended to give guidance to the contractors when developing their Best Management practices for soil loss and scheduling their construction activities. Item 1b was amended to include the preservation of "buffers around surface waters" during construction. Item 2a was amended to add "non-stormwater discharges" to the good housekeeping Best Management Practices list.

**Benefit:**

The proposed amendments will make CALGreen consistent with the objectives of the California Water Action Plan 2016 Update, Water Smart Landscapes recommendations by the California Urban Water Conservation Council, and the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit).

**Section 5.106.2 Stormwater pollution prevention for projects that disturb one or more acres of land.**

**Specific Purpose:**

CBSC proposes to add a new code section 5.106.2 to the CALGreen code to alert the code user that there are specific state permitting requirements for projects that disturb one or more acres of land and in some cases even projects that disturb less than one acre but are part of a larger common plan of development or sale. These permitting requirements are administered by the State Water Resources Control Board and are not a requirement in the CALGreen Code.

**Rationale:**

This code section was added to ensure that developers of projects that entail disturbance of an acre or more of land, or less than one acre but part of a larger common plan of development or sale are aware that they must comply with the applicable NPDES stormwater permits for construction activities administered by the State Water Resources Control Board. A note was added to emphasize the need to address post-construction requirements for stormwater management as required by the NPDES stormwater permits. Normally, such information is not readily available to the typical code user but by including it in CALGreen all designers will be made aware of this regulation.

**CAC Comments:** The Green/PEME Code Advisory Committee recommended Approve as Amended the to proposed code section.

**CBSC Response:** The CBSC agreed with the CAC and has made amendments to section by adding a “note” in the leading paragraph to the proposed verbiage. The Section 5.106.2 was retained but further amended as there was benefit in keeping the code section numbering. This verbiage alerts code users and developers to specific requirements for NPDES stormwater permits for construction activities administered by the State Water Resources Control Board.

**Benefit:**

By referencing the stormwater management requirements in CALGreen, the State Water Board aims to improve awareness of modern stormwater management to design professionals, such as engineers and architects, involved in the design phase for construction projects, resulting in enhanced on-site retention and infiltration where stormwater is used as a resource to aid in the mitigation of climate change and increase municipal water supply sources. Additionally, knowing these requirements prior to starting the initial project design process will benefit developers by avoiding costly post-design revisions and/or construction change orders, if the permit requirements are not included in the initial design.

**ITEM 3. CBSC Proposes to amend mandatory regulations in Chapter 5, Division 5.1, Section 5.106 Site Development, Long term bicycle parking.**

**Agency Statement:** CBSC proposes to amend Chapter 5, Section 5.106.4.1.2 and add two new code Sections 5.106.1.3 and 5.106.1.4

**Specific Purpose:**

CBSC proposes to amend section 5.106.1.2 by clarifying that the application for long-term bicycle parking is triggered when you have new buildings with tenant spaces that have 10 or more tenant-occupants occupying an individual tenant space and to separate the additions and alterations into its own separate code subsection. Section 5.106.1.3 is being added as a new separate code section for additions and alterations to clearly define the specific requirements. Additionally, Section 5.106.1.4 is being added as a new code section for new shell buildings in phased projects.

**Rationale:**

Currently, the requirement for long-term bicycle parking for new construction does not clearly distinguish that the requirement is for the “tenant spaces” within a new building that have 10 or more tenant-occupants occupying the individual spaces. This amendment will provide clarity by adding the words “tenant spaces” to the main paragraph. Additionally, the current code combines the provisions for new buildings and for additions and alterations in the same leading paragraph which has caused confusion. This amendment proposes to separate the requirements to make it very clear when the code provision is triggered based on the scope of work. Lastly, CALGreen does not specifically address new shell buildings in phased projects. This issue makes it possible for a new shell buildings in phased projects to appear to be exempt for this code requirement because shell buildings in phased projects do not have individual spaces built out or tenant-occupants during the initial phase of construction. To address this issue, BSC is proposing to add Section 5.106.1.4 to clarify that in the absence of tenant spaces or tenant-occupants secure bicycle parking is required for 5-percent of the “anticipated” tenant-occupant vehicular parking spaces. These proposed changes clarify existing language and do have a regulatory change in effect.

**Benefit:**

This amendment will add clarity for the code user and local enforcing agencies by creating a clear distinction between new construction, additions and alterations and shell buildings in phased projects which will aid in user interpretation and local agency enforcement.

**ITEM 4. CBSC Proposes to amend Chapter 5, Section 5.106.8 Light pollution reduction**

**Section 5.106.8 Light pollution reduction.**

**Agency Statement:** CBSC proposes to amend Item 1, 2 and 4 and add a new Item 3 with additional changes to Table 5.106.8 and an added reference note. CBSC worked closely and coordinated with the California Energy Commission on these proposed amendments.

**Specific Purpose:**

CBSC proposes to amend Item 1 by adding lighting zone 0 along with adding the specific code location of the lighting zones found in the California Administrative Code.

CBSC proposes to amend Item 2 to repeal the Uplight and Glare references from the IES TM-15-11 reference standard and to add a reference to the IES TM-15-11 Backlight values table which will be added to CALGreen Chapter 8 for reference.

CBSC proposes to add a new Item 3 to reference the California Energy Code for Uplight and Glare requirements and to add a reference to the *California Energy Code* Uplight and Glare values tables which will be added to CALGreen Chapter 8 for reference.

CBSC proposes to amend item 4 by renumbering it from existing item 3 to new item 4 and to add the “N” banner clarity and consistency.

CBSC proposes to amend TABLE 5.106.8 [N] to include a lighting zone zero column and to add an acronym LZ (lighting zone) to the header of the table for the various zones and add the acronyms B, U, and G to the vertical column with a change to the glare rating column for “front” hemisphere. Additionally, footnote 1 was amended to repeal lighting zone 5.

CBSC proposes to add a “Note” to reference Chapter 8 for the IES and Energy code lighting level ratings tables referenced in this code.

**Rationale:**

Item 1 was amended to clarify that the requirements for Light Pollution Reduction now include lighting zone 0 which was adopted in the 2016 California Energy Code Part 6 and to add the specific code section for lighting zones.

Item 2 was amended to clarify that the use of the IES standard for Light Pollution Reduction only applies to Backlight, and not to Uplight and Glare as the *California Energy Code* already establishes the requirements for both Uplight and Glare. A reference to the IES TM-15-11 Backlight values TABLE A-1 has been added to direct the code user to Chapter 8 where Table A-1 will be added for reference.

Item 3 adds new language that references the *California Energy Code* TABLES 130.2-A and 130.2B for Uplight and Glare requirements because the *California Energy Code* already regulates those two ratings. A reference to the *California Energy Code* TABLES 130.2-A and 130.2B has been added to direct the code user to Chapter 8 where these tables will be added for reference.

Item 4 (formally Item 3) was amended to accommodate Item 3. Additionally, an [N] was added to the Table 5.106.8 to align with the title for illustrated Table 5.106.8 [N]. These amendments are no substantive and editorial in nature.

The “note” has been amended to include one additional note #2 to reference Chapter 8 for the IES and energy code lighting level ratings tables referenced in this code for ease of use for the code user. These amendments are non-substantive and editorial in nature.

TABLE 5.106.8 [N] was amended to coordinate with amended item 1 and provide clarity for the various lighting zones by adding the acronyms LZ (lighting zone) to the header of the table to match the naming convention for the *California Energy Code* tables. Acronyms B, U, and G were added to the vertical column for clarify and consistency the naming convention of the ratings. A change to the glare rating column for “front” hemisphere was done to correct an error in the table. Additionally, footnote 1 was

amended to repeal lighting zone 5 which does not appear in the California Energy Code and/or Chapter 10 of the California Administrative Code and is not applicable.

**Benefit:**

These proposed code amendments will provide clarity and convenience for the code user by clarifying the applicability of the lighting level requirements and by providing a reference to the IES TM-15-11 Table A-1 and *California Energy Code* Tables 130.2-A and 130.2-B that will be added to chapter 8 for reference. Adding these tables to the code will aid the code user by having quick access to the ratings values in one single location. Additionally, the proposed amendments will remove duplication of requirements from Item 3 and will make Table 5.106.8 easier to read by matching the lighting zones with the ratings tables naming conventions.

**ITEM 5. CBSC Proposes to amend Chapter 5, Sections 5.303.3**

**Specific Purpose:**

CBSC proposes to amend code Sections 5.3030.3.1 and 5.3030.3.2 by changing the showerhead(s) maximum flow rate from 2.0 gallons per minute to 1.8 gallons per minute.

**Rationale:**

The 2016 California Green Building Standards Code (CALGreen) currently requires maximum flow rate not to exceed 2.0 gallons per minute for all nonresidential showerheads. However, the Title 20 Appliance Efficiency regulations enacted a more restrictive standard for showerheads and set the flow rate at 1.8 gallons per minutes for showerheads sold or installed on or after July 1, 2018. With this in mind, CBSC proposes to align the mandatory requirements in CALGreen with the Appliance Efficiency Regulations in Title 20 during this code cycle which takes effect on July 1, 2018, thereby avoiding a conflict between Titles 20 and 24 of the California Code of Regulations.

**Benefit:**

This regulation aligns with existing Appliance Efficiency regulations adopted by the California Energy Commission, thereby avoiding a conflict between Titles 20 and 24 of the California Code of Regulations. This amendment maintains uniformity and constancy between the various regulations which aids the code user the local enforcing agency.

**ITEM 6. CBSC Proposes to amend chapter 5,Section 5.410**

**Sections 5.410.2, 5.410.2.1, 5.410.2.2, 5.410.4, and 5.410.4.2**

**Specific Purpose:**

CBSC is proposing to amend the language for commissioning and for testing and adjusting by repealing the reference to energy related systems found in Sections 5.410.2.1, 5.410.2.2, and 5.410.4.2. Additionally, the code section names are amended for sections 5.410.2 and 5.410.4 along with a “Note” for energy related systems was been added.

**Rationale:**

The amendments to Sections 5.410.2.1, 5.410.2.2, and 5.410.4.2. are being proposed because the California Energy Code already has commissioning requirements for these energy systems. Sections 5.410.2 and 5.410.4 are being renamed to clarify the building sizes that trigger commissioning. A “Note” is being added to Section 5.410.2 and 5.410.4 to direct the code user to the California Energy Code for commissioning of energy related systems, controls, and testing and adjusting. Section 5.410.2.1 is being renamed from “energy efficiency goals” to “building sustainable goals”. These proposed amendments are non-substantive and editorial in nature. These proposed amendments have been coordinated with the California Energy Commission.

CAC Comments: The Green/PEME Code Advisory Committee recommended Approve as Amended to proposed amendments to code section 5.410.4 by adding “,new buildings less than 10,000 square feet” to the existing section title.

CBSC Response: The CBSC agreed with the CAC and has made amendments as recommended.

**Benefit:** Maintain clarity for the code user as to the applicability of CALGreen commissioning. This amendment will benefit the code user and the local enforcing agency by simplifying the code and eliminating potential confusion between the commissioning requirements in the CALGreen and Energy Codes.

#### **ITEM 7. CBSC Proposes to amend chapter 8**

##### **Specific Purpose:**

CBSC is proposing to reprint the Appendix Reference Standards from the 2010 CALGreen Code July 1, 2012 Supplement with additional edits to address the Commissioning requirements for non-energy related systems as shown on Section 5.410 Commissioning. The reference standard is a guide and is being added to the COMPLIANCE FORMS, WORKSHEETS AND REFERENCE MATERIAL in Chapter 8.

##### **Rationale:**

Currently, the CALGreen code does not require commissioning to be done by a certified commissioning provider and this proposed reference document would provide a much needed resource. This proposed code change will give guidance to the code user and local jurisdictions for implementing the CALGreen commissioning requirements for those non-energy systems which are not regulated by other state agencies. These amendments are non-regulatory as are added to provide a tool for both the code user and the local enforcing agency.

**CAC Comments:** The Green/PEME Code Advisory Committee recommended Further Study to the proposed code section and suggested to move the reference standard from the original proposed Chapter 6 to Chapter 8.

**CBSC Response:** The CBSC agreed with the CAC and has made the suggested changes by moving the proposed reference standard from Chapter 6 REFERENCED ORGANIZATIONS AND STANDARDS to Chapter 8 as the document is a guide.

##### **Benefit:**

Provide a reference document for CALGreen commissioning for non-energy related systems. This amendment will benefit the code user and the local enforcing agency by providing a common resource document for typical non-energy related systems commissioning requirements that can be used on a statewide basis.

#### **ITEM 8. CBSC Proposes to amend Chapter 8**

##### **Specific Purpose:**

CBSC is proposing to add the Illuminating Engineering Society (IES) Backlight Ratings lighting levels table and California Energy Code Uplight & Glare Ratings lighting level tables to Chapter 8 (Compliance Forms, Worksheets and Reference Materials) as an aid to the code user.

##### **Rationale:**

CBSC is proposing to clarify the language to address Light Pollution Reduction by repealing the Uplight and Glare references from the IES TM-15-11 reference standard as stated Item 4 and to add a reference to the IES TM-15-11 Backlight values table in Chapter 8 for reference. Additionally, the California Energy Code Uplight & Glare Ratings lighting level tables are also being added to Chapter 8 (Compliance Forms, Worksheets and Reference Materials). These tables are referenced from Section 5.106.8 Light Pollution Reduction. These amendments are non-substantive and editorial in nature.

##### **Benefit:**

These proposed code amendments will provide convenience for the code-user by incorporating the lighting level tables into Chapter 8, within the CALGreen code.

## **ITEM 9. CBSC Proposes to amend Appendix Chapter A5 Site Development**

### **Specific Purpose and Rationale:**

Section A5.106.2 – This section was amended to consolidate compliance with stormwater design by removing references to A5.106.2.1 and A5.106.2.2. Compliance is now proposed to be simply through local requirements or Section A5.106.3 Low impact development.

Sections A5.106.2.1 and A5.106.2.2 – These sections are being proposed for deletion because the modifications to Section A5.106.2 and A5.106.3 make these sections obsolete.

Section A5.106.3 – This section was amended to include parts of Section A5.106.2.2 and clarify the LID options.

**Benefit:** This proposed code change will remove duplication between the voluntary and mandatory code sections that were amended.

## **ITEM 10. CBSC Proposes to amend Appendix Chapter A5, Section A5.601 CALGreen Tier 1 and Tier 2**

BSC withdrew this proposed code change during the CAC meeting.

## **ITEM 11. CBSC Proposes to amend Appendix Chapter A5, Section A5.601 Compliance**

### **Specific Purpose:**

CBSC is proposing to amend Table A5.601 and repeal Section A5.602 Nonresidential Occupancies Application Checklists. New Checklist will be added to replace the repealed application checklist.

### **Rationale:**

CBSC is proposing to amend Table A5.601 by adding a note to the new proposed checklist tables found in new sections A5.602, A5.602.1 and A5.602.2. An additional reference to checklist within Table A5.601 has been added. Additionally Section A5.602 Nonresidential Occupancies Application Checklists is being repealed in its entirety and replaced with three checklist tables shown on new Sections A5.602, A5.602.1 and A5.602.2. These three new checklists are developed to show compliance with; mandatory measures, CALGreen Tier 1 and CALGreen Tier 2.

**Benefit:** This proposed code change will provide guidance to local jurisdictions for determining if Tier 1 or Tier 2 reach standards are being achieved by the use of the checklists. These checklist tables will provide a useful tool that can be used on the construction documents. Local jurisdictions can require the use of these checklists in the construction documents used for plan submittal.

## **ITEM 12. CHAPTER 1 ADMINISTRATION, SECTION 103 BUILDING STANDARDS COMMISSION**

### **Agency Statement:**

CBSC proposes to amend **Section 103 BSC-CG** to clarify that the banner, when used to indicate CBSC's amendments regarding gray water systems, applies to all nonresidential occupancies for which no other state agency has authority, pursuant to Health and Safety Code Section 18941.8.

### **Rationale:**

CBSC's amendments to this section clarify existing authority for nonresidential gray water systems and also implements elements of AB 2282.

### **Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, 18940.6, and 18941.8.

Reference: Health and Safety Code Section 18928.1, 18940.6, and 18941.8.



## **ITEM 13. SECTION 202 DEFINITIONS**

### **ALTERNATE WATER SOURCE**

**Rationale:** CBSC is proposing this new definition to reference alternate water sources in appropriate sections of CALGreen, consistent with HCD.

### **CONSTRUCTION SITE**

**Rationale:** In response to the CAC recommendation for further study, CBSC coordinated with HCD and is co-adopting the scope of the AB 2282 mandate in Section 1501.1.1.1 of the California Plumbing Code, which applies to both residential and nonresidential occupancies (outdoor only). Because this language contains a reference to the term “construction site” in both the CPC and CALGreen, CBSC is also co-adopting this definition with HCD.

### **DISINFECTED TERTIARY RECYCLED WATER**

**Rationale:** This term is used in the existing CPC definition for “Reclaimed (Recycled) Water”, but is not defined. CBSC is proposing this new definition to clarify that disinfected tertiary recycled water meets applicable recycled water use criteria pursuant to Title 22.

### **ON-SITE TREATED NONPOTABLE WATER**

**Rationale:** CBSC is proposing this new definition to reference on-site treated nonpotable water in appropriate sections of CALGreen, consistent with HCD.

### **RECLAIMED (RECYCLED) WATER. (BSC-CG)**

**Rationale:** In 2014 the California Department of Health (CDPH) – Division of Drinking Water was transferred under the State Water Resources Control Board (SWRCB), including all authority for the recycled water use criteria regulations contained within Title 22 of the California Code of Regulations. CBSC is adopting the existing definition (currently only adopted by HCD) and amending it to align with this transfer of authority from CDPH to SWRCB, consistent with HCD.

### **RECYCLED WATER SUPPLY SYSTEM**

**Rationale:** Recycled Water Supply System is not defined in CALGreen. This new definition aligns with the UPC model code definition for “Water Supply System” (for potable water). This new term is used in CBSC’s amendments to CALGreen included herein. In response to the CAC recommendation for further study, CBSC coordinated with HCD and DWR to revise this new definition, which now references “reclaimed (recycled) water” to align with the existing California Plumbing Code definition. Additionally, the phrase “within the property lines of the premises” has been changed to “within the premises” to address stakeholder concerns and align more closely with the UPC model code definition for potable water supply systems. CBSC is also proposing this new definition in the California Plumbing Code.

## **ITEM 14. CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES:**

### **Division 5.3 - WATER EFFICIENCY AND CONSERVATION**

#### **SECTION 5.305 WATER REUSE SYSTEMS (Reserved)**

**Rationale:** CBSC is proposing to strike the word “Reserved” because there is new mandatory language to be included in this previously reserved section.

#### **5.305.1 Recycled Water Supply Systems.**

**Rationale:** CBSC is proposing this new title for recycled water supply systems to articulate the scope of the mandatory requirements for their installation.

**Note:** Based on the CAC further study recommendation, CBSC is removing the indoor recycled water requirements in both the California Plumbing Code and the CALGreen Code. As such, the scope of this proposal is limited to outdoor recycled water systems for landscape irrigation.

#### **5.305.1.1 Outdoor Recycled Water Systems.**

**Rationale:** CBSC proposes to adopt the above referenced section, which incorporates statutory requirements enacted by Assembly Bill 2282 (Gatto, Chapter 606; Statutes of 2014). AB 2282 mandates CBSC to research, develop, and submit for adoption mandatory building standards for the installation of outdoor recycled water supply systems for newly constructed nonresidential buildings during the 2016 Intervening Code Adoption Cycle.

This mandate is limited to areas within local jurisdictions that have feasible and cost-efficient access to a water recycling facility, or areas where recycled water is within a planned service area and a specific implementation timeline for the provision of recycled water has been identified.

CBSC is currently proposing building standards which, if approved, will require all newly constructed nonresidential buildings, where disinfected tertiary recycled water is available from a municipal source to a nonresidential building site, to be provided with a recycled water supply system allowing for use of reclaimed (recycled) water.

In consultation with HCD, DWR, State Water Resources Control Board (SWRCB), public water systems, recycled water producers/purveyors, product manufacturers, local building officials, apartment and other rental property owners, California-licensed contractors, the building industry, water research association, and other interested parties, CBSC developed standards for recycled water supply systems for outdoor use (aboveground and subsurface irrigation).

CBSC proposes the following exceptions for recycled water supply systems:

(1) if the recycled water being delivered is being used for potable purposes.

(2) if the cost to bring recycled water is not cost efficient and/or feasible. A note provides additional discretionary authority for local agencies to further reduce the geographical area of mandate. This may apply to the recycled water purveyors who may not have enough recycled water supply to provide to new developments and/or if the recycled water purveyors cannot guarantee uninterruptible service. This was a concern brought up by our Recycled Water Purveyors in our stakeholder meetings. Some of the smaller Recycled Water Purveyors may need to shut down services or interrupt services provided to customers for a day or two. However, these service providers only service landscape areas in which they are able to notify customers beforehand when their service will shut down. This would not be acceptable to customers who use recycled water to flush toilets or urinals.

(3) a dual plumbed system will not be required in the landscape area where disinfected tertiary recycled water is available.

(4) potable water may be used temporarily as allowed by the AHJ and the recycled water purveyor.

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**Note:** Based on the CAC further study recommendation to focus on outdoor landscape irrigation, CBSC is removing its amendments to Section 5.410 Building Maintenance and Operation (which deals mostly with indoor application).

Additionally, CBSC is removing its amendments to voluntary appendix chapter A5, once again based on the CAC recommendation that the indoor elements of recycled water be withdrawn for long-term further

study. CBSC is maintaining the existing voluntary measures, which provide the option for local jurisdictions flexibility in selecting elective tier options.

#### **NEW ITEM 15. CBSC Proposes to amend Chapter 2, Section 202 Definitions**

CBSC proposes to rename Hybrid Urinal to “Urinal, Hybrid” in Chapter 2 as a result of comments received from the Green/PEME Code Advisory Committee for an identical definition being added to Chapter 2 of the California Plumbing Code. This amendment will maintain clarity and consistency between the two codes. This amendment is being proposed post CAC meeting however it is non-substantive and editorial in nature.

#### **NEW ITEM 16. CBSC Proposes to amend Chapter A5, Section A5.303.4.1 Nonwater supplied urinals.**

CBSC proposes to rename hybrid urinal to “urinal, hybrid” in section A5.303.4.1 as a result of changes made to the definition in Item 15 above. This amendment will maintain clarity and consistency between the two related code terms. This amendment is being proposed post CAC meeting however it is non-substantive and editorial in nature.

#### **TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:**

(Government Code Section 11346.2(b)(3)) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

**For Items 1-11, 15 and 16,** reference documents relied upon are as follows:

1. 2015 Appliance Efficiency Regulations. July 2015.  
<<http://www.energy.ca.gov/2015publications/CEC-400-2015-021/CEC-400-2015-021.pdf>>

**For Items 12-14,** reference documents relied upon are as follows:

1. AB 2282, (Gatto, Chapter 606, Statutes of 2014)  
[http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140AB2282](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB2282)

Pursuant to AB 2282 (Gatto, Chapter 606, Statutes of 2014), CBSC, in consultation with HCD, DWR, and other public and private entities, conducted the research and development of these regulations during several precycle stakeholder workshops. The cost of compliance, water savings, and other impacts of the regulations cite information obtained from stakeholders, including data provided by the El Dorado Irrigation District, Department of General Services – Real Estate Services Division, South Bay Water Recycling, San Francisco Public Utilities Commission, and the Dublin/San Ramon Services District). These documents relied upon are included with CBSC’s rulemaking.

#### **STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:**

(Government Code Section 11346.2(b)(1))

**Regarding Items 1-11, 15 and 16,** California’s building standards codes have historically been a mix of performance and prescriptive provisions and reference standards. This proposed code language continues this practice, such that wherever possible, a performance option is included to provide flexibility to the code user. This proposed CALGreen code change will update existing prescriptive standards for showerhead flow rates from 2.0 to 1.8 GPM to be consistent with Title 20 Appliance Efficiency Standards.

**Regarding Items 12-14,** the installation of recycled water supply systems references existing prescriptive standards as specified in the California Plumbing Code, and are consistent with the recycled water use criteria in Title 22 of the CCR. CBSC is statutorily required to adopt by reference model building codes, which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety, and welfare standards for owners, occupants, and guests. Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

## CONSIDERATION OF REASONABLE ALTERNATIVES

(Government Code Section 11346.2(b)(4)(A))

**Regarding Items 1-11, 15 and 16**, the modifications that CBSC is proposing during this intervening cycle are intended to align with the mandate contained Title 20 Appliance Efficiency Standards for nonresidential showerhead flow rates. Because these regulations seek to simply align with the Appliance Efficiency regulations in Title 20 of the California Code of Regulations, which are mandatory statewide, no alternative to this responsive action was considered.

**Regarding Items 12-14**, the modifications that CBSC is proposing during this intervening cycle are intended to implement the mandate contained within AB 2282, which requires consistency with the recycled water use criteria contained in Title 22 of the California Code of Regulations. As such, no alternatives to this regulation were considered.

## REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.

(Government Code Section 11346.2(b)(4)(B))

**Regarding Items 1-11, 15 and 16**, no alternatives were identified to lessen the adverse impact on small business.

These proposed amendments are necessary to align with current laws and regulations found in Title 20 and the CALGreen code. These proposed amendments are mostly editorial in nature and non-substantive and align with current laws and regulations found in Title 20 and the CALGreen code. Additionally, those proposals that are new to the code or are made more stringent have been vetted through stakeholder outreach, through both BSC focus group meetings and individual contact. Those proposals have been justified by proposing parties as providing benefits that are greater than costs under the current regulation, as summarized in the Economic and Fiscal Impact Statement Attachment A. Overall, while there may be some one-time costs associated with these regulations, often they can be achieved cost neutral, and will generally benefit the public health and environment.

**Regarding Items 12-14**, no alternatives were identified to lessen the adverse impact on small business. Elements of this proposal that are new to the code or are made more stringent have been thoroughly vetted through stakeholder outreach and have been justified to implement the statutory mandate contained within AB 2282, which only impacts new construction in jurisdictions that have access to recycled water from a purveyor

## FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.

(Government Code Section 11346.2(b)(5)(A))

**Regarding Items 1-11, 15 and 16**, CBSC has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states, as detailed in the Economic and Fiscal Impact Statement and Exhibit A.

**Regarding Items 12-14**, CBSC has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states. These regulations may result in an expansion of businesses in the recycled water industry, including (but not limited to) product manufacturers, plumbing contractors, recycled water purveyors, etc.

## ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION

(Government Code Sections 11346.3(b)(1) and 11346.5(a)(10))

The CBSC has assessed whether or not and to what extent this proposal will affect the following:

- ☐ **The creation or elimination of jobs within the State of California.**  
The expanded use of dual piping could increase the number of jobs in the recycled water industry, including (but not limited to) plumbing contractors, product manufacturers, water purveyors, enforcement officials, etc.

- ☐ **The creation of new businesses or the elimination of existing businesses within the State of California.**  
New businesses in the building, plumbing, manufacturing, and recycled water industries may be created resulting from these regulations.
- ☐ **The expansion of businesses currently doing business with the State of California.**  
Various plumbing stakeholders including (but not limited to) plumbing product manufacturers, plumbing contractors, private recycled water producers, etc., could see an expansion in business resulting from these regulations.
- ☐ **The benefits of the regulation to the health and welfare of California residents, worker safety, and the state's environment.**  
These regulations will aid in the reduction of potable water use for indoor and outdoor applications, as required by AB 2282 (Chapter 606, Statutes of 2014). This will improve the health and welfare of California residents and elements of the State's environment that have been adversely affected by the historic drought. Additionally, benefits for amendments to site development provisions include added clarity and removing ambiguities to existing code language that will benefit contractors and businesses. The new proposed language will also make the site development requirements consistent with the Construction General Permit requirements for projects of one acre or more. Project contractors will benefit from clarifications of the construction BMPs. The addition of some code sections will increase awareness to developers, engineers, and architects involved with project design to be further aware of stormwater management measures and integration with site development. The proper integration of LID strategies provides multiple benefits, including greening of urban environments, improved groundwater recharge, reduced heat island effect, and potential urban habitat coupled with improved water quality. Additional benefits include better code compliance by California residents that will lead to a better built environment.

**ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS**

(Government Code Section 11346.2(b)(5)(B)(i))

**Regarding Items 1-11, 15 and 16**, these regulations will likely result in the following:

- The estimated cost for compliance for showerheads is negligible. There are plenty of products in the market that meet or exceed the proposed showerhead flow rate standard and there are multiple manufacturers that currently manufacture showerheads that meet the standard. Showerheads are available at a variety of price points and ranges in cost may be due to a number of factors including style or functional design. There is no direct correlation between the showerhead flow rates and the cost of the product.
- The estimated cost for compliance for site development is negligible. No additional costs to businesses and individuals are expected based on them having to comply with the proposed updates. Businesses and individuals would be more likely to avoid change orders or fines from the Water Boards as a result of the proposed changes.
- No increased cost of compliance for those regulations that make technical, non-substantive or clarifying changes.
- Benefits include; reduction of potable water use for indoor applications.
- This will improve the State's environment that has been adversely affected by the historic drought.
- Protection of the environment and limited resources.
- General welfare of California residents.

**Regarding Items 12-14**, these regulations will likely result in the following:

- No increased cost of compliance for those regulations that make technical, nonsubstantive or clarifying changes.
- Increased cost of compliance for regulations that require the installation of recycled water supply systems. However, the benefit of providing the groundwork for water conservation will preserve natural resources and likely outweighs the cost impact.
- Ensure the protection of public health and safety, worker safety and the environment.
- Promotes the general welfare of California residents.

#### **DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

(Government Code Section 11346.2(b)(6))

This section does not apply because CBSC is not a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal.